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APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. 09/280,796 03/26/99 LEWI5 C SA9-98-116 **EXAMINER** TM02/0522 NOREEN A KRALL VITAL, P IBM CORPORATION ART UNIT PAPER NUMBER INTELLECTUAL PROPERTY LAW 5600 COTTLE ROAD (L2PA/0142) 2186 SAN JOSE CA 95193 DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

05/22/01

1- File Copy

Office Action Summary

•*i*. ~

Application No. 09/280,796

Applicant(s)

Lewis et al.

Examiner

Pierre Vital

Art Unit 2186

| The MAILING DATE of this communication appears | s on the cover sheet with the correspondence address |
|--|--|
| Period for Reply | |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SE THE MAILING DATE OF THIS COMMUNICATION. | T TO EXPIRE 3 MONTH(S) FROM |
| Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication. If the period for reply specified above is less than thirty (30) days, a rep be considered timely. | ly within the statutory minimum of thirty (30) days will |
| If NO period for reply is specified above, the maximum statutory period communication. Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailin earned patent term adjustment. See 37 CFR 1.704(b). | e. cause the application to become ABANDONED (35 LLS C. & 133) |
| Status | |
| 1) X Responsive to communication(s) filed on <u>Mar 26, 1</u> | 999 |
| 2a) ☐ This action is FINAL . 2b) ☒ This acti | on is non-final. |
| 3) Since this application is in condition for allowance exclosed in accordance with the practice under Ex pa | ccept for formal matters, prosecution as to the merits is arte Quayle35 C.D. 11; 453 O.G. 213. |
| Disposition of Claims | |
| 4) 💢 Claim(s) <u>1-14</u> | is/are pending in the applica |
| 4a) Of the above, claim(s) | is/are withdrawn from considera |
| 5) | is/are allowed. |
| 6) 💢 Claim(s) <u>1-14</u> | is/are rejected. |
| 7) | is/are objected to. |
| 8) Claims | are subject to restriction and/or election requirem |
| Application Papers | |
| 9) The specification is objected to by the Examiner. | |
| 10) ☑ The drawing(s) filed on <i>Mar</i> 26, 1999 is/a | re objected to by the Examiner. |
| 11) The proposed drawing correction filed on | is: a∏ approved b)∏disapproved. |
| 12) The oath or declaration is objected to by the Examine | r. |
| Priority under 35 U.S.C. § 119 | |
| 13) \square Acknowledgement is made of a claim for foreign prio | rity under 35 U.S.C. § 119(a)-(d). |
| a) All b) Some* c) None of: | |
| 1. Certified copies of the priority documents have l | peen received. |
| 2. Certified copies of the priority documents have to | peen received in Application No |
| Copies of the certified copies of the priority doci application from the International Bureau *See the attached detailed Office action for a list of the company. | (PCT Rule 17.2(a)). |
| 14) ☐ Acknowledgement is made of a claim for domestic pr | · |
| Attachment(s) | |
| 15) X Notice of References Cited (PTO-892) | 18) Interview Summary (PTO-413) Paper No(s). |
| 16) X Notice of Draftsperson's Patent Drawing Review (PTO-948) | 19) Notice of Informal Patent Application (PTO-152) |
| 17) Information Disclosure Statement(s) (PTO-1449) Paper No(s). | 20) Cther: |

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DETAILED ACTION

Drawings

1. The drawings are objected to under 37 C.F.R. 1.83(a) because they fail to show a labeled representation of elements 110A-110D and 112a-112b in Fig. 1a and 1b as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Correction is required.

All changes to the drawings, other than informalities noted by the Draftsperson, MUST be made in the manner of a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings and MUST be approved by the examiner before the application will be allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.

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Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 3. Claims 1, 2, 5, 8, 9 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Chung et al. (US5675,797).

As per claims 1 and 8, Chung discloses a buffer pool further comprised of an amount of fixed storage and an amount of virtual storage [Col.1, Lines 34-40]; a buffer manager for dynamically varying the amount of fixed storage and the amount of virtual storage based on a comparison of present usage of the amount of fixed storage and the amount of virtual storage to target values [Col.4, Lines 30-38; Col.6, Lines 39-67; Col.7, Lines 1-59].

As per claims 2, 5, 9 and 12, Chung discloses a buffer pool comprising a plurality of buffers logically partitioned into three states: fixed, pageable and released [Col.1, Lines 39-41; Col.2, Lines 60-62; Col.4; Lines 56-59]; said buffer pool comprising both fixed and virtual storage [Col.1, Lines 34-40].

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Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 3, 4, 6, 7, 10, 11, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung et al. (US5,675,797) and Yoshimoto et al. (US5,862,409).

As per claims 3, 6, 10 and 13, Chung discloses the claimed invention as detailed above in the previous paragraphs. However, Chung fails to specifically teach a buffer index table comprising buffer index elements wherein each entry represents one buffer in the pool as recited in the claims.

Yoshimoto discloses a buffer index table comprising buffer index elements wherein each entry represents one buffer in the pool [Col.8, Lines 32-51].

It would have been obvious to one of ordinary skill in the art, having the teachings of Chung and Yoshimoto before him at the time the invention was made, to modify the system Chung to include a buffer index table wherein each entry represents one buffer in the pool because it would have provided effective system management by monitoring all changes to the extent of the buffer capacity as taught by Yoshimoto.

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As per claims 4, 7, 11 and 14, Yoshimoto discloses said buffer index elements further comprise a buffer state information field which represents the logical partition where the buffer resides and a pointer field to the next available buffer in the same state within the buffer pool [Col.8, Lines 33-35].

Conclusion

- 6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach varying fixed and virtual storage in a buffer, buffer partitioning and buffer index table.
- Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre M. Vital whose telephone number is (703) 306-5839. The examiner can normally be reached on Monday to Friday 8:30 A.M. to 5:00 P.M., alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim, can be reached on (703) 305-3821. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-6306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9000.

MK/pmv

May 18, 2001

MATTHEW-KIM SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2100